

PRE-APPEAL BRIEF REQUEST FOR REVIEW		Docket Number (Optional) 025761-0262375	
		Application Number 09/355,623	Filed October 5, 1999
		First Named Inventor PIIRAINEN, Olli	
		Art Unit 2618	Examiner TRAN, Tuan A.
<p>Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.</p> <p>This request is being filed with a notice of appeal.</p> <p>The review is requested for the reason(s) stated on the attached sheet(s). Note: No more than five (5) pages may be provided.</p> <p>I am the</p> <p><input type="checkbox"/> applicant /inventor. _____ /Larry J. Hume/ Signature</p> <p><input type="checkbox"/> assignee of record of the entire interest. See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96) _____ Larry J. Hume Typed or printed name</p> <p><input type="checkbox"/> attorney or agent of record. Registration number _____ (703) 770-7981</p> <p><input checked="" type="checkbox"/> attorney or agent acting under 37 CFR 1.34. Registration number if acting under 37 CFR 1.34. 44,163 Telephone number 09-07-2007 Date</p> <p>NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.</p>			
<input type="checkbox"/> *Total of 1 forms are submitted.			

(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
OLLI PIRAINEN
Application No.: 09/355,623

Confirmation No.: 6720

Filed: October 5, 1999

Art Unit: 2618

For: A TRANSMISSION METHOD IN A RADIO
SYSTEM ADJUSTING TRANSMISSION
MOMENTS

Examiner: TRAN, Tuan A.

ARGUMENTS SUBMITTED WITH PRE-APPEAL BRIEF CONFERENCE REQUEST

MS AF

Commissioner for Patents
P.O. Box 1450
Alexandria, VA. 22313-1450

Dear Sir:

In response to the Final Office Action mailed March 7, 2007, and concurrent with the "Notice of Appeal", "Pre-Appeal Brief Conference Request", and Petition for Three (3) Month Extension of Time filed herewith, the due date for this communication is September 7, 2007. Appellant submits the following arguments for patentability over the art of record for consideration by the Appeal Conferees. Claims 1-34 are pending, and claims 1, 17, and 34 are independent.

I. PROCEDURAL DEFICIENCIES OF THE FINAL OFFICE ACTION

The Examiner has failed to meet his burden as required by the MPEP¹ with respect to citing the specific basis for rejection, including where each limitation of the pending claims may be found in the applied art. The Examiner ignores the different statutory classes of claims and their inherently different limitations in asserting on page 5 of the Final Office Action, *without any support at all*, that "[c]laims 17-27 and 29-34 are rejected for the same reasons as set forth in [method] claim[s] 1-11 and 13-16, as apparatus *[sic]*", and on page 6 of the Final Office Action that "[c]laim 28 is rejected for the same reasons as set forth in claim 12, as apparatus *[sic]*".

To provide Appellant a fair opportunity to understand and respond in good faith to the Examiner's specific reasons for rejection of the system and base station claims, *a new, non-final rejection should be provided with specificity as to where the variously recited limitations are found in the claims on appeal*. Accordingly, if a Notice of Allowability is not forthcoming in response to this Request, Appellant submits that the only procedurally correct response would be a new, non-final office action.

¹ For example, see MPEP 706.02(j) "Contents of a 35 U.S.C. 103 Rejection".

II. REJECTIONS TO BE REVIEWED UPON APPEAL

The grounds of rejection submitted for review are those in the Final Office Action, and include:

- A. ***Unpatentability Rejection*** of claims 1-11, 13-27, and 29-34 under 35 U.S.C. §103(a), as allegedly being unpatentable over Kay et al. (US 5,357,513) ("Kay");
- B. ***Unpatentability Rejection*** of claims 12 and 28 under 35 U.S.C. §103(a), as allegedly being unpatentable over Kay in view of Björk et al. (US 6,084,862) ("Björk")

Due to the required page limits of this Request, the Arguments presented are directed only to the unpatentability rejection of independent claims 1, 17, and 34 in paragraph II.A, above, without recourse *at this time* to arguing similar limitations of the various patentable features of the dependent claims, including dependent claims 12 and 28 that are subject to unpatentability rejections over Kay and Björk.

III. THE APPLIED ART

A. Discussion of Kay

According to the Abstract, Kay purportedly relates to transmission power level adjustment in a mobile telephone system that multiplexes plural voice traffic channels on a single carrier using a TDMA protocol. The capacity of the mobile telephone system is asserted as being increased by assigning voice traffic capacity, not on a conversation basis, but on a speech spurt basis. Delays of undetermined duration may occur between subsequent information bursts which correspond to the transmission of speech spurts. An adjustment request regarding the ***power*** with which the information bursts are transmitted from a transmitting station to a receiving station is generated by detecting an information burst transmission at the receiving station, measuring the time which elapses following the transmission, and comparing the elapsed time with a threshold value. If the elapsed time exceeds a threshold, a further transmission is requested from the transmitting station notwithstanding the availability of any information to transmit. The power of the transmission received in response to the request is measured, and ***a control message for requesting an adjustment to the transmission power level in response to the measurement is transmitted to the transmitting station.***

Kay is completely silent on inducing two mobile stations to transmit signals in the same time slot and at the same frequency. Further, Kay is completely silent on any method, system, or arrangement ***to mitigate the resulting interference*** that would result from simultaneous transmission by two mobile stations in the same time slot and at the same frequency, as would result from implementing the claims on appeal.

Instead, Kay at col. 18:20-56 asserts a method of reducing ambient noise level at the mobile unit between speech spurts. If, at the end of a particular speech spurt ambient noise is at a relatively low level, then the base station would be adding low level idle channel noise in the forward direction. If just before the next speech spurt, the ambient noise level is significantly increased, then the listener at the PSTN end will hear a discontinuity in the ambient noise level. To overcome this problem, the base station can initiate a procedure to

actually measure ambient noise level by sending (on the forward channel FC) a reverse channel assignment to the mobile for a predetermined duration, *e.g.* four frames. The mobile unit then transmits (even in the absence of speech) a signal registering ambient noise level over the assigned four frames. The base station can then use this information to adjust its idle channel noise level to avoid overloading the RA channels.

The Examiner alleges that FIG. 16 discloses both a first signal (RR) being sent from a first subscriber terminal using a determined timeslot 1 and a determined frequency 7, as well as a second signal (RR) using the determined timeslot 1 and a determined frequency 7 simultaneously employed by the first subscriber terminal, as claimed by Appellant. *Appellant traverses this mischaracterization of Kay, which is completely without technical foundation.*

Instead, what FIG. 16 clearly shows is an alternative aspect of Kay *directed to a single subscriber terminal* in which a variation on the frequency hopping and complement of reverse control sub-slots such as that of FIG. 14 is provided. This variation is asserted as being useful in the event that more than 24 sub-slots per frame time are required, so that the arrangement of FIG. 15 can be altered to include 7 or 9 control slots per frame time, using 7 or 9 frequencies, as shown in FIGS. 16 and 17, respectively. See Kay at col. 5:64-66 and col. 13:13-16.

Appellant recognized in his application that, since the signals transmitted at the same frequency and in the same time slot can be separated after the signals have been received (*e.g.*, using the variously disclosed and claimed time shift and correlation techniques), the radio system can be implemented by using a minimal number of radio frequencies. Additionally, signals can be received even at low signal reception levels.

To the contrary, Kay merely teaches a radio telephony system with a plurality of transmitting stations, where each station transmits information bursts to another station on radio carrier frequencies divided into time slots, and where delays of undetermined duration may occur between subsequent information bursts. Kay teaches generating an adjustment request regarding the *power* (not time shift) with which the information bursts are transmitted from a transmitting station to a receiving station, detecting an information burst transmission at the receiving station, measuring the time which elapses following the transmission, and comparing the elapsed time with a predetermined threshold value (and not imposing a time shift in transmission in the timeslot). *Power levels* are adjusted, and no time delay within a slot is imposed on any mobile station transmitting using the same determined timeslot and frequency as another transmitting mobile station.

To summarize, Kay provides no teaching or suggestion of two mobile subscriber stations (purposefully or not) both *transmitting using a determined timeslot and a determined frequency*, and certainly does not teach or suggest *adjusting a transmission moment* (*i.e.*, a time of transmission) of the second signal within the

determined time slot *so that the base station receives the transmitted first and second signals at different moments within the same time slot.*

B. Discussion of the Examiner's Reliance Upon "Well-Known" Features

As required by MPEP 2143.03, to establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art and that only in limited circumstances is it appropriate for an Examiner to rely on "common knowledge" in making a rejection, and that such rejections should be judiciously applied. The MPEP goes on to require that any facts so noticed should be of notorious character and serve only to "fill in the gaps" in an insubstantial manner which might exist in the evidentiary showing made by the Examiner to support a particular ground for rejection.

Appellant submits that relying on asserted "well known" features to provide a teaching of the recited "plurality of RF heads" is not, in any sense, "gap filling", even if the recitations are found in the preambles of independent claims 1, 17, and 34, since these RF heads in the preamble are linked to the positive recitations of the claims with regard to the individual transmissions of the first and second subscriber terminals.

Appellant submits that UK Patent Application GB2308041, invoked by the Examiner as "evidence" of the use of multiple RF heads, does not make up for any deficiencies of Kay discussed above with respect to two mobile subscriber stations both transmitting using a determined timeslot and a determined frequency, and adjusting a transmission moment of the second signal within the determined time slot so that the base station receives the transmitted first and second signals at different moments within the same time slot.

C. Discussion of Björk

Björk fails to remedy the deficiencies of Kay because Björk merely teaches determining a residual energy metric from a corresponding channel estimate, a known training sequence and a corresponding set of received samples. The one or more residual energy metrics are then used to estimate received useful energy and reflection energy in a received signal. A measure of time dispersion in the signal that has been received from the channel may then be obtained by comparing the estimated received and reflected energy.

IV. SPECIFIC DEFICIENCIES OF THE APPLIED ART

A. The Examiner has not met the legal requirements for unpatentability of claims 1-11, 13-27, and 29-34 under 35 U.S.C. §103(a) because Kay does not teach or suggest all the claimed limitations of independent claims 1, 17, and 34.

Clearly, Kay does not disclose, teach, or suggest a transmission method used in a radio system that includes, *inter alia*, "...commanding a second subscriber terminal to send the at least one base station a second signal *using the determined time slot and the determined carrier frequency simultaneously employed by the first subscriber terminal*; and commanding at least the second subscriber terminal *to adjust a transmission moment of the second signal within the determined time slot so that the at least one base station receives the*

transmitted first and second signals at different moments within the same time slot", as recited in independent claim 1 (**emphasis** added).

Further, Kay does not disclose, teach, or suggest a radio system which includes, *inter alia*, "...means for commanding a second subscriber terminal to send the at least one base **station a second signal using the determined time slot and the determined carrier frequency simultaneously employed by the first subscriber terminal**"; and means for commanding at least the second subscriber terminal **to adjust a transmission moment of the second signal to be transmitted to the at least one base station within the determined time slot so that the at least one base station receives the transmitted first and second signals at different moments within the same time slot**", as recited in independent claim 17 (**emphasis** added).

Finally, Kay does not disclose, teach, or suggest a base station which receives access bursts from at least two of a plurality of subscriber terminals via different RF-heads, wherein the base station includes, *inter alia*, "...means for commanding a second subscriber terminal to send the base station **a second signal using the determined time slot and the determined carrier frequency simultaneously employed by the first subscriber terminal**"; and means for commanding at least the second subscriber terminal **to adjust a transmission moment of the second signal to be transmitted to the base station within the determined time slot so that the base station receives the transmitted first and second signals at different moments within the same time slot**", as recited in independent claim 34 (**emphasis** added). .

IV. CONCLUSION

In view of the above-identified deficiencies of Kay, reversal of the Examiner by the Appeal Conferees and allowance of pending claims 1-34 in this Application are respectfully requested.

Date: September 7, 2007

Respectfully submitted,

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